4: .

L 47553-66

ACC NR: AP6028781

against low-flying aircraft, and the unsolved problem of antimissile defense are underlined); fighter-interceptor forces and fighter units with long-range and other technical tactical properties; electronic systems of aerospace observation, target detection, and fighter control; electronic countermeasure systems; and civil defense systems. Coordination problems are dealt with in the concluding chapter. Organizational and operational requirements are analyzed and basic principles for the optimal utilization of technical tactical capabilities of weapons and systems, and maximum cooperation between units and component forces for the purpose of effective concerted action, are established. The difference in the organizational concept of a permanent territorial air-defense system and of the air-defense forces of a field army (or larger operational unit) is explained. It is pointed out that wherever tactically and operationally feasible, a joint air-defense command (objedinjeno komandovanije) is created for a given sector, objective, or particular mission. In such a case all forces of the territorial system as well as the air-defense forces of the field army (or larger unit) are subordinated to this joint command. This command assumes responsibility for organizing the cooperation and coordination of all component forces and systems, including reinforcement units and area civil-defense organization.

SUB CODE: 15

SUBM DATE: none/

Card 2/2 vmb

L 47553-66 ARG/FSS-2/FBO/EWP(a)/EWP(h)
ACC NR: AP6028781 (4) DE/WW (A) SOURCE CODE: YU/0009/66/000/003/0233/0240 AUTHOR Bobicic, Milorad - Bobichich, M. (Colonel of the artillery) ORG. None TITLE Coordination in air defense system SOURCE Vazduhoplovni glasnik, no. 3, 1966, 233-240 TOPIC TAGS: air defense system, air defense weapon, antiaircraft defense, antimissile defense ABSTRACT: Views previously expressed by another author in the no. 5, 1965, issue of "Vazduhoplovni glasnik" are examined and the tasks and coordination problems of an air-defense system are discussed. It is pointed out that the Korean and Vietnam wars have reemphasized some types of air-defense weapons and, while large sums of money are being poured into research and development of new weapons, the effort to further develop and improve existing conventional ones is being continued. It is asserted that, considering the great destructive power and the range of modern air-attack weapons, no single type of air-defense means can solve all the problems; therefore, only the coordinated action of all available means can accomplish the task. In a separate chapter the capabilities and limitations of Air-defense weapons and support systems are evaluated. Considered are: light AA [antiaircraft] artillery, effective up to 3000 - 4000 m altitude; medium AA artillery; surface-to-air missiles (their limitations Card 1/2

L 47553-66 ACC NR: AP6028781

against low-flying aircraft, and the unsolved problem of antimissile defense are underlined); fighter-interceptor forces and fighter units with long-range and other technical tactical properties; electronic systems of aerospace observation, target detection, and fighter control; electronic countermeasure systems; and civil defense systems. Coordination problems are dealt with in the concluding chapter. Organizational and operational requirements are analyzed and basic principles for the optimal utilization of technical tactical capabilities of weapons and systems, and maximum cooperation between units and component forces for the purpose of effective concerted action, are established. The difference in the organizational concept of a permanent territorial air-defense system and of the air-defense forces of a field army (or larger operational unit) is explained. It is pointed out that wherever tactically and operationally feasible, a joint air-defense command (objedinjeno komandovanije) is created for a given sector, objective, or particular mission. In such a case all forces of the territorial system as well as the air-defense forces of the field army (or larger unit) are subordinated to this joint command. This command assumes responsibility for organizing the cooperation and coordination of all component forces and systems, including reinforcement units and area civil-defense organization.

SUB CODE: 15 SUBM DATE: none/

Card 2/2 vmb

SIWA, Mauryoy, mgr ins.; BOBIENSKI, Januas, mgr ins.

Quarts filters of intermediate frequency. Prace Inst teletechn 5 no.4179-85 '61.

SHARPENAK, A.E.; MIKHEYEVA, L.I.; NIKOLAYEVA, N.V.; SLOVOKHOTNOVA, I.A.;
BOBIK, G.S.; ALAYEVA, V.N.; STUPNIKOVA, G.A.; GUSAKOVA, I.A.;
GUSARSKAYA, V.V.; VOICHEK, K.Ye.; SMIRNOVA, V.N.; PANOVA, V.V.;
KHERSONSKAYA, F.M.;

Connection between enamel, the dentine, and the organism as a whole. Vrach.delo no.2:203-205 F 159. (MIRA 12:6)

1. Kafedra biokhimii (zav. - prof.A.E. Sharpenak) Moskovskogo meditsinskogo stomatologicheskogo instituta.

(TENTH)

16,3400

8/044/62/000/011/018/064 A060/A000

AUTHOR:

Bobik, O.I.

TITLE:

On the stability of systems of differential equations with small pa-

rameters

PERIODICAL:

Referativnyy zhurnal, Matematika, no. 11, 1962, 42, abstract 11B179

(Zb. robit aspirantiv Mekhan.-matem. ta fiz. fak. L'vivs'k. un-t,

1961, no. 1, 41 - 45; Ukrainian)

TEXT:

The author considers a system

$$\frac{dx_{i}}{dt} = \sum_{j=1}^{n+k} p_{i,j} (t) x_{j} (i = 1, ..., n),$$

$$\mu_s \frac{dx_{n+s}}{dt} = \sum_{i=1}^{n+k} p_{i,j}$$
 (t) x_j (s = 1, ..., k),

where the $\mu_{ extsf{S}}$ are small parameters. Conditions are introduced under which the

Card 1/2

On the stability of systems of differential 3/044/62/000/011/018/064 A060/A000

asymptotic stability of the degenerate system (obtained from (1) when μ_s = 0) implies the asymptotic stability of the system (1). These conditions take the form of requiring the principal minors of some determinant (independent of μ_s) to be positive. The proof is carried out by constructing a Lyapunov function. The paper contains misprints.

A.B. Vasil'yeva

[Abstracter's note: Complete translation]

Card 2/2

SKOROBOGAT'KO, V.Ya. [Skorobohat'ko, V.IA.]; BOBIK, O.I. [Bobyk, O.I.]

New signs of the uniqueness of the solution to the first boundary value problem for an elliptic equation and a system of equations of an atomic reactor. Dop. AN URSR no. 6:703-706 '64. (MIRA 17:9)

1. Institut matematiki AN UkrSSR. Predstavleno akademikom AN UkrSSR Yu. A.Mitropol'skim [Mytropol's'kyi, IU.0.].

SKOROBOGAT'KO, V.Ya. [Skorobohat'ko, V.IA.]; BOBIK, Ye.I. [Bobyk, C.I.]

Sphere of maximum radius inscribed in a given region. Dop. AN UKSR no.12:1567-1570 '63. (MIRA 17:9)

1. Institut matematiki AN UkrSSR. Predstavleno akademikom AN UkrSSR Yu.A. Mitropol'skim [Mytropol's'kyi, IU.O.].

SKOROBOGAT'KO, V. Ya., (L'vov); BOBIK, Ye.I. (L'vov)

Factorization of linear and nonlinear differential operators. Part 2. Ukr.mat. zhur. 16 no.6:783-798 '64 (MIRA 18:2)

BOBIK, Yu. Yu.

USSR/Pharmacology. Toxicology. Ganglioblocking Drugs.

V-4

Abs Jour : Ref Zhur-Biol., No 6. 1958, 28053.

: Bobik Yu. Yu. Author

: Not given Inst

: Experimental-Clinical Investigation of the Effect Title

of Pachicarpine on the Contracting Activity of the

Uterus.

Orig Pub : Akushervstvo i ginekologiya, 1956, No 6, 23-29.

Abstract : The effect of pachicarpine (1) on the contracting

activity of the uterus was studied in rabbits. A rise in the tonus of the musculature of the uterus was noted in experiments in situ upon the intravenous administration of the drug in a dose of 1 mg/kg. A recordable rise and an increase in the amplitude

Card 1/3

USSR/Pharmacology. Toxicology. Ganglioblocking Drugs.

V-4

Abs Jour : Ref Zhur-Biol., No 6, 1958, 28053.

Abstract : The athor thinks that I is preferable to other oxytocytic preparations. I does not modify blood pressure and may be used in women with hypertonia. The condition of the mother, the fetus, and the newly born child is not affected following the administration of T ministration of I.

Card 3/3

BOBIK, Yu. Yu. Cand Med Sci -- (diss) "Treatment of the weakness of labely recommended by pathikarpin." Uzhgorod, 1957.

23 pp 21 cm. (Min of Higher Education UkSSR. Uzhgorod State Univ. Med Faculty). 200 copies. (KL, 23-57, 116)

-119-

USSR/Human and Animal Physiology (Normal and Pathological).

Nerve and Muscle Physiology.

T

Abs Jour: Ref Zhur-Diol., No 17, 1958, 79922.

Author : Daksheyev, N.S.; Dobik, Yu. Yu.

Inst :

Title : Influence of Pachycarpin and Pituitrin on the

Contracting Activity of the Uterus in a Condition

of Hypothermia.

Orig Pub: Dokl. i soobshc. Yzhgorodsk. un-t. Ser. med., 1957, No 1,

20-22.

Abstract: In 8 puberal female rabbits, body temperatures

were dropped to 23.5-24°. A Ringer-Locks solution was poured into the abdominal cavity. The level of liquid was found 1.5-2 cm higher than the horn of the uterus (HU). After the establish-

Card : 1/2

USSR/Human and Animal Physiology (Normal and Pathological).

Nerve and Muscle Physiology.

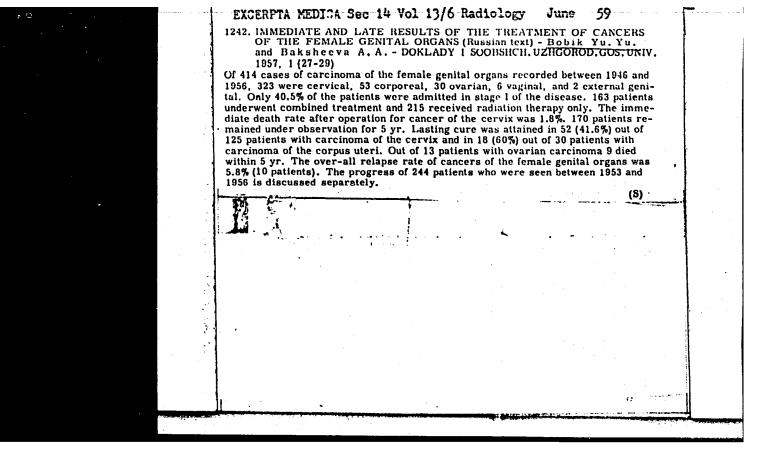
7

Abs Jour: Ref Zhur-Biol., No 17, 1958, 79922.

ment of a normal rhythm of contraction of the HU, records were taken. Pachycarpin (I) in a quantity of 5 mg/kg usually extinguished contractions an average of latimes. I significantly increased the tonus of the contractions and their amplitude. In all of the tests, the tonus advanced to the original level in 6-12 minutes after the introduction of I and was found to remain at the same level during the course of the test. I is used to bring HU out of dormancy, by causing an increase of the tonus of the uterus muscles, resulting in the appearance of contractions. Pituitrin (0.3 units per 1 kg) in a condition of hypothermia increased the tonus, and increased the amplitude and rate of contractions.

Card : 2/2

75



USSR / Pharmacology and Toxicology--Ganglionic Blocking V-2
Agents

Abs Jour: Ref Zhur-Biol., No 23, 1958, 107275

Author : Bobik, Yu. Yu.

Inst : Not given

Title : On the Mechanism of the Action of Pachycarpine

upon the Uterus

Orig Pub: Farmakol. i toksikologiya, 1958, 21, No 1, 64-67

Abstract: Experiments were conducted on sexually mature female rabbits. Intravenous administration of pachycarpine (P), following prior ligation of the iliac vessels and anastomoses with seminal vessels, leads to an insignificant increase of the tone and to an increase of the frequency of contractions. P depresses the cholinesterase of the blood, which contributes to a more pronounced manifestation of the

Card 1/2

6ъ

BAISYE EV, N.S.; BOBIK, Yu.Yu.

Use of the new spasmolytic preparation tropacin for the treatment of threatened abortion. Akush.i gin. 36 no.1:45-49 Ja-F 160. (MIRA 13:10)

(MUSCLE RELAXANTS)

(ABORTION)

BOBIKOV, A., podpolkovnik

Psychological war in the plans of the Pintagon. Voen. vest. 43 no.12: 109-112 D 763. (MIRA 17:2)

ACC NR: AT7004329

SOURCE CODE: UR/0000/66/000/000/0116/0126

AUTHOR: Korshunov, Yu. M. (Ryazan'); Bobikov, A. I. (Ryazan')

ORG: none

TITLE: Digital smoothing filters

SOURCE: AN UkrSSR. Metody i sredstva preobrazovaniya informatsii (Methods and means of information conversion). Kiev, Naukova dumka, 1966, 116-126

TOPIC TAGS: electric filter, digital filter, smoothing filter

ABSTRACT: Digital filters with infinite transient time (W. Karush, IRE Trans., EC-4, no. 1, 1955) have a low order of astatism, i.e., high dynamic error. The present article offers a method for synthesizing digital filters with infinite transient time which can smooth down and also transform functionally the signal; their order of astatism can be made sufficiently high. A filter with an exponential

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ACC NR: AT7004329

weight function and an infinite transient time is equivalent (as far as reproduction of linear signal and smoothing of noise are concerned) to a filter with finite transient time that has a rectangular weight function. The new filter can be designed according to this formula: $V_n = x_n + \Delta_0 V_{n-1}$, where the signal mean value is $v_n = \Delta_0 V_{n-1}$ If $\Delta_0 = 2^{-q}$, the $V_n \Delta_0$ multiplication can be reduced to shifting V_n by q places to the right. Block diagrams of the new filter for 0, 1, and 2 orders of astatism are shown. Orig. art. has: 2 figures and 66 formulas.

SUB CODE: 09 / SUBM DATE: 14Jul66 / ORIG REF: 003 / OTH REF: 001

Card 2/2

BOBIKOV, K.M. (Novosibirsk)

Device for selecting undisturbed samples of sandy soils. Oen. fund. i mekh. grun. 2 no.6:24-25 '60. (MIRA 13:12) (Soil mechanics)

BOBIKOV, N. F. (Aspirant)

"An Investigation of the Stability and Durability of Farm-Tractor Caterpillar Tread Sections." Cand Tech Sci, Moscow Automotive Mechanics Inst, 10 Dec 54. (VM, 1

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions. (12)

SO: SUM No. 556, 24 Jun 55

ARKHANGEL'SKIY, B.Ye.; BOBIKOY, N.F.; CHERYAPIN, A.M.

Track with cast links and labyrinth sealings in joints, Trakt, i sel'khozmash, 30 no.7:9-11 J1'60. (MIRA 13:10)

1. Linguskiy tractornyy zavod (for Arkhangel'skiy). 2.Nauchno-issledovatel'skiy avtotraktornyy institut (for Cheryapin). (Crawler tractors)

PLESHKIN, Mikhail Mikhaylovich; PLESHKIN, Leonid Mikhaylovich; BOBIKOV, P.D., nauchn. red.; RYCHEK, T.1., red.

[Joints of wooden articles; a collection of drawings] Soedineniia stoliarnykh izdelii; sbornik chertezhei. Moskva, Vysshaia shkola, 1965. 106 p. (MIRA 18:4)

SOV/20-122-3-34/57

AUTHORS: Gindin, L. M., Bobikov, P. I., Kouba, E. F., Kopp, I. F., Rozen,

A. M., Ter-Oganesov, N. A., Zagarskaya, N. I.

TITLE: Separation of Metals by the Exchange-Extraction Method

(Razdeleniye metallov metodom obmennoy ekstraktsii)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 3, pp 445-447

(USSR)

ABSTRACT: An extraction in connection with an exchange reaction between metals is a very productive method of separation if these metals

are in different phases: in an organic phase as salts and aliphatic acids and in an aqueous phase as salts of mineral acids (Ref 1). For this purpose saturated aliphatic acids with 5 and more carbon atoms were used. They fulfill a double function:

a) they take part in the formation of the corresponding metallic salts (soaps), and b) they serve as solvents for these soaps being formed. Aliphatic acids are used most properly as solutions in an inactive solvent with a low specific weight. Directions in an inactive solvent with a low specific weight.

tions for the preparation of such solutions are mentioned. The exchange reaction between the metals as mentioned earlier can be

Card 1/3 expressed by the following equation:

Separation of Metals by the Exchange-Extraction Method SOV/20-122-3-34/57

 $(^{1}Me^{2+})_{aqu} + (^{2}MeR_{2})_{org} - (^{1}MeR_{2})_{org} + (^{2}Me^{2+})_{aqu};$ (1)

 $^{1}\mathrm{M}$ and $^{2}\mathrm{M}$ denote the corresponding metals, R - the organic residue of the aliphatic acid $C_{n}H_{2n+1}C00'$, the indices org and aqu denote the organic and the aqueous phase. The equilibrium constant of the exchange reaction depends on the character of the exchanging metals, as was confirmed by the experiments. Metals with a small pH value ("acid" metals) mainly pass into the organic phase, metals with a high pH value, however, (more alkaline metals) into the aqueous phase. In many cases reaction (1) takes place almost completely (>99%), it may therefore be said that a metal is displaced from the organic phase by another metal. Separation of the metallic salts by means of the reaction mentioned in the title can be carried out from the aqueous as well as from the organic phase. In the first case (Fig 1) the aqueous phase which contains a mixture of salts of two metals is brought into contact with the organic phase in which a salt of an aliphatic acid of a stronger alkaline metal is contained. In the second case the organic phase which contains a mixture of salts of the aliphatic acids is brought into contact with the aqueous phase which contains a salt of a mineral acid of a

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Separation of Metals by the Exchange-Extraction Method SOV/20-122-3-54/57

weaker alkaline metal. Table 1 reveals the results of separation of metallic salts combined with sulfuric acid by means of the discussed method. As organic phase a solvent of industrial aliphatic acids of the fraction c_7 - c_9 (average molecular

weight 141) in petroleum (400 g/liter) was used. Data on table 1 characterize a single exchange. By using an extraction column the degree of separation is considerably increased. If metals have similar properties reaction takes place incompletely. There are 2 figures, 1 table, and 1 reference, 1 of which is Soviet.

Noril'skiy gorno-metallurgicheskiy kombinat im. A. P. ASSOCIATION:

Zavenyagina (Noril'sk Mining Metallurgy Kombinat imeni A. P.

Zavenyagin)

PRESENTED: May 4, 1958, by S. I. Vol'fkovich, Member, Academy of Sciences,

SUBMITTED: April 12, 1958

Card 3/3

5(2,3,4)

SOV/20-128-2-20/59

AUTHORS:

Gindin, L. M., Bobikov, P. I., Rozen, A. M.

TITLE:

Some Physico-chemical Peculiarities of the Exchange Extraction

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 2, pp 295-298

(USSR)

ABSTRACT:

The exchange extraction is based on reactions proceeding between the salts of fatty acids (soaps), which are mainly dissolved in the organic phase, and the salts of mineral acids dissolved in the aqueous phase (Ref 1). Besides the above-mentioned reaction (1), its equilibrium constant K (2) as well as the equilibrium conditions for metal soaps (3) are indicated (K_1 and K_2). The soaps are not dissociated in the organic phase, but they are dissociated in the aqueous phase. In the exchange reaction, the equilibrium conditions of the equations of both soaps must be satisfied at the same time. A common solution of the two equations (3) gives the value of K_1/K_2 (4). From (2) and (4) it results that $K = K_1/K_2$, i.e. the equilibrium constant of the exchange reaction is equal to the ratio of the

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SOV/20-128-2-20/59 Some Physico-chemical Peculiarities of the Exchange Extraction

distribution constants of the mutually exchanging metals. Thus the direction of the exchange reactions is conditioned by the distribution character of the corresponding scaps. The metals, the scaps of which are less soluble in water, pass into the organic phase, mainly as soaps. Metals with a higher water solubility of their soaps are concentrated in the aqueous phase as cations. With respect to the rising water solubility of their scaps, the metals constitute the following sequence: Fe^{III} , Pb^{II} , Cu^{II} , Zn, Ni^{II} , Co^{II} , Mn^{II} , Na; the same order is maintained in the exchange reactions: each metal, which is present as a cation in the aqueous phase, dislodges all metals on its right in the sequence out of the soap dissolved in the organic phase. The extraction of the metal by the organic phase can be achieved by the introduction of an alkali into the system. Figure 1 shows the experimental results characterizing the extraction of Cu^{II} , Zn, Ni^{II} , and Go^{II} by a fatty acid (fraction C7-C9 dissolved in petroleum, concentration of the acid 400 g/1) under the influence of NaOA. This shows that the

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SOV/20-128-2-20/59

Some Physico-chemical Peculiarities of the Exchange Extraction

equation $\lg \alpha = K_6 + 2$ pH (11) derived from the above-mentioned equations is satisfied. With an increase in the basic properties of the metals, the value of the constant K6 decreases, while the above-mentioned sequence of metals is maintained. It is easy to prove that for metals of equal valency the constant (1) is determined by the constants K_{Me-H} characterizing the extraction of each metal mutually exchanging under the influence of the base. After further calculations ((12) - (20)), the authors arrive at the conclusion that the solubility of the soap in the aqueous phase is proportional to the cube root of the solubility product of the metal hydroxide. This explains the connection between the behavior of a metal during the extraction by fatty acids, and its basicity. The separation of metals by exchange extraction constitutes a peculiar hydrolytic method of separation: this separation is distinguished from the ordinary hydrolytic method by the absence of precipitation. As is well intelligible, this separation proceeds more perfectly since there is no carrying along by the solid phase. Be-

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SOV/20-128-2-20/59

Some Physico-chemical Peculiarities of the Exchange Extraction

sides, a multi-stage separation in counterflow columns is easier to be carried out. Therefore, this kind of extraction makes possible the separation of metals with similar properties

(e.g. Co^{II} - Ni^{II}) which cannot be achieved by means of hydrolytic separation. Figure 2 shows the dependence of the

lg(Me⁺²)b on pH in the distribution of soaps. There are 2 figures and 4 references, 2 of which are Soviet.

ASSOCIATION:

Noril'skiy gornometallurgicheskiy kombinat im. A. P.

Zavenyagina (Noril'sk Mining Metallurgical Kombinat imeni

A. P. Zavenyagin)

PRESENTED:

April 6, 1959, by I. I. Chernyayev, Academician

SUBMITTED:

March 30, 1959

Card 4/4

GINDIN, L.M.; KOPP, I.F.; ROZEN, A.M.; BOBIKOV, P.I.; KOUBA, E.F.; TER-OCANESOV, N.A.

Extraction equilibria for cobalt, nickel, and certain metals. Zhur.neorg.khim. 5 no.1:149-159 Ja '60.

(MIRA 13:5)

1. Noril'skiy gornometallurgicheskiy kombinat im. A.P. Zavenyagina, Opytno-issledovatel'skiy tsakh.
(Extraction (Chemistry)) (Metals)

GINDIN, L.M.; BOBIKOV. P.I.; KOUBA, E.F.; BUGAYEVA, A.V.

Separation of metals by exchange extraction with fatty acids under the influence of alkali. Zhur. neorg. khim. 5 no.8:1868-1875 Ag 160. (MIRA 13:9)

1. Noril'skiy gornometallurgicheskiy kombinat im.A.P. Zavenyagina.
(Acids, Fatty) (Metals--Analysis) (Extraction (Chemistry))

GINDIN, L.M.; BOBIKOV, P.I.; KOUBA, E.F.; BUGAYEVA, A.V.

Distribution of metal scaps in exchange extraction. Zhur. neorg. khim. 5 no.10:2366-2373 0 160. (MIRA 13:10)

1. Noril'skiy gornometallurgicheskiy kombinat im.A.P.Zavenyagina.
(Soap) (Extraction (Chemistry))

GINDIN, L.M.; BOBIKOV, P.I.; KOUBA, E.F.

Extraction of metals of the platinum group with amines. Izv. Sib. otd. AN SSSR no.10:84-91 '61. (MIRA 14:12)

1. Noril'skiy gornometallurgicheskiy kombinat imeni $A_{\bullet}P_{\bullet}$ Zavenyagina.

(PLATINUM GROUP)
(EXTRACTION(CHEMISTRY))
(AMINES)

18.3100

31739 \$/136/61/000/012/001/006 **B091/E**335

AUTHORS:

Gindin, L.M., Bobikov, P.I., Patyukov, G.M.,

Dar'yal'skiy, V.A., Brodnitskiy, K.P. and Kasavin, I.A.

TITLE:

Electrolytic-extraction method for the production of

high-purity cobalt

PERIODICAL: Tsvetnyye metally, no. 12, 1961, 22 - 26

TEXT: The basic method for the production of high-purity cobalt is its purification from other metals by double extraction and the final electrolytic separation of the metallic cobalt. Cobalt is separated from less alkaline metals during double extraction and, subsequently, it is separated from more alkaline ones, which plate out at the cathode to a certain extent, by electrodeposition. In the above technological scheme, an ion-exchange separation from Pb and Zn is used, in addition to the double-extraction purification of cobalt solutions. However, variations of this scheme are possible in which only extraction-purification without ion exchange is carried out. This method is based on the double reactions between metals in different phases: in the organic phase, in the form of fatty acid salts (soap) and Card 1/3

31739 S/136/61/000/012/001/006 Electrolytic-extraction method ... E091/E335

in the aqueous phase, in the form of mineral acid salts (chlorides or sulphates). Fatty acids of the C₇-C₉ fraction

(monocarbonic acids of the aliphtic series) are used in the organic phase; these participate in the formation of the corresponding metal salts and are also solvents for the soaps formed. The principles underlying this method are discussed and the procedure is outlined. The method has many advantages over the double extraction-electrolytic one. The following are the main advantages: 1) the purification of the Co solution from impurities is completely automated and mechanized; 2) filtration of solid cakes and operations associated with

- processing and unloading are dispensed with;
- 3) the extraction of Co is higher and the losses lower; 4) compared with the normal hydrometallurgical process, this method of Co-production results in a higher quality metal;
- 5) purification is carried out at normal temperature and pressure;

Card 2/3

\$/136/61/000/012/001/006

Electrolytic-extraction method .. E091/E335

- 6) working conditions are healthier;
- 7) production costs are lower.

There are 1 figure, 1 table and 4 Soviet-bloc references.

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Card 3/3

GINDIN, L.M.; BOBIKOV, P.I.; KOUBA, E.F.; BUGAYEVA, A.V.

Exchange interaction of soaps with mineral acid salts. Zhur.neorg.khim. 6 no.12:2797-2804 D '61. (MIRA 14:12)

1. Noril'skiy gornometallurgicheskiy kombinat imeni A.P.Zavenyagina. (Metallic soaps) (Acids, Inorganic)

GINDIN, L.M., kand.khimicheskikh nauk; BOBIKOV, P.I., inzh.; SOKOLOV, A.P., inzh.

Former indivisibles. Nauka i zhizn' 29 no.1:56-57 Ja '62. (MIRA 15:3)

GINDIN, L.M.; BOBIKOV, P.I.; PATYUKOV, G.M.; ROZEN, A.M.; KOUBA, E.F.; BUGAYEVA, A.V.

Separation of mixtures of metals by exchange extraction with carboxylic acids. Ekstr.; teor.,prim.,app. no.2:87-111 '62.

(MIRA 15:9)

(Metals) (Extraction (Chemistry)) (Acids, Organic)

BOBIKOV, P.I.; BORBAT, V.F.; BEGAYEVA, A.V.; DOLGIKH, V.I.

Extraction of Se (IV) by amines. TSvet. met. 36 no.12:54-57 D '63.

(MIRA 17:2)

DOLGIKH, V.I.; BOBIKOV, P.I.; BORBAT, V.F.; FERBERG, M.B.; GINDIN, L.M.

Extractive method of recovering noble metals from slimes. TSvet. met.
36 no.ll:85-86 N '63. (MIRA 17:1)

BOBIKOV, P.I. (Moskva); PLAKSIN, I.N. (Moskva)

Theory of the industrial separation of metals by exchange recovery. Izv. AN SSSR Met. 1 gor. delo no.3:107-115 My-Je*64

BOBIKOV, P.I.; GINDIN, L.M.

Commercial separation of metals by the method of exchange extraction in columns. Izv. Sib. otd. AN SSSR no.6846-53 '62' (MIRA 1787)

1. Noril'skiy gorno-metallurgicheskiy kombinat, Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR, Novosibirsk.

BORBAT, V.F.; KOUBA, E.F.; BOBIKOV, P.I.

Mechanism of palladium extraction by alkyl trimethyl ammonium chloride. Izv. vys. ucheb. zav.; tsvet. met. 8 no.5:66-70 '65. (MIRA 18:10)

1. Noril'skiy gornometallurgicheskiy kombinat.

SOIN, Aleksandr Ivanovich, stalevar; BOHIKOV, Sergey Aleksandrovich, brigadir slesarey, deputat Traktorozavodskogo rayonnogo soveta Volgograda; ZYKOV, Andrey Ivanovich, naladchik kuznechnogo tsekha, udarnik kommunisticheskogo tsuda; DIDENKO, Vladimir Ivanovich; IVANOV, Boris Ivanovich

With the sharp eye of a passenger. Zhil.-kom. khoz. 12 no.9:23-25 S '62. (MIRA 16:2)

1. Volgogradskiy traktornyy zavod im. F.E.Dzerzhinskogo (for Soin, Bobikov, Zykov). 2. Redaktor gazety "Traktor" Volgogradskogo traktornogo zavoda im. Dzerzhinskogo (for Didenko). 3. Glavnyy inzh. tramvayno-trolleybusnogo upravleniya Volgograda (for Ivanov).

(Transportation)

LITVINOVA, Ye.V.; BOBIKOV, Ye.B.

Intensity of beer wort fermentation by the Sacch-Carlsbergensis strain 776 as recorded by daily fermentation data. Trudy TSentr.nauch.-Issl. inst.piv., bezalk. i vin.prom. no.9:46-48 62. (MIRA 16:10)

DENSHCHIKOV, M.T.; RYLKIN, S.S.; ZHVIRBLYANSKAYA, A.Yu.; MOISEYEVA, V.P.;
BERENTSVEYG, I.A.; BOBIKOV, Ye.V.

Role of diacetyl on the vitality of sedimentary brewers' yeasts.

Trudy TSentr.nauch.-issl.inst.piv., bezalk.i vin.prom.no.ll:16-27'63.

(MIRA 17:9)

AFRIKYAN, E.K.; TUMANYAN, V.G.; BOBIKYAN, R.A.

Effect of penetrating radiations on the nitrogen-fixing activity of Azotobacter cultures. Dokl. AN Arm. SSR 26 no.4:253-256 '58.

(MIRA 11:5)

l.Sektor mikrobiologii Akademii nauk Armyanskoy SSR. Predstavleno V.A. Farandzhyanom. (Azotobacter) (X rays--Physiological effect)

Afrikan, E. Ke, Kuchayera, A. G., Candidates of Biological Sciences Use of Antitioties in Plant Californing (Prisonmire anti- bloidakey v restemiyes addres). Tegins' (kedesti mak 282m, 1959, Er. 1; FP 142-143 (USES) Tegins' (kedesti mak 282m, 1959, Er. 1; FP 142-143 (USES) To on Grant Gesting with this subject took place in Ferron To on Grant Gesting with this subject took place in Ferron To on Grant Gesting with this subject took place in Ferron To on Grant Gesting with this subject took place in Internation To on Grant Gesting with this subject took place in Internation To one of the Leaders' and Er. Internation To one of the Leaders' of Marchial Landers' (Marchia) and To one of the Leaders' of Marchial Landers' (Marchia) and To one of the Leaders' of Marchial Landers' (Marchia) and The Batter Entrolished Internation and Marchial Compart. The Batter Entrolished Internation and Marchial Compart.	Linguality SIERIA space about alreads satabalities which it the translation of several parts or prosects the development of March plants of several parts or prosects the development of March plants of several parts development of March plants of Several Parts of Lingual Lingual Lingual March Parts of March 1980 of March Parts of March 1980 of Mar	with the villations of exployes mirrelies in include several functions of the second several second several second several sev	Le Antinental M. E. Arry described a method of rupid deviationing of the effect of antilitoties on blants. The braining of the effect of antilitoties on blants a periodical in the conference found the vort earried out in its field in the PER insufficient. The conference of an industrial production of antilities and all others proparations in the production of antilities and all others proparations against large-scale president in its measure. The beneath of its presidents of the manifestion of fails threships of reaction of fails in the president of a standard of the presidents of the presidents of points of are presidents of plants by microful origin was farther of reaction of the presidents of the presi
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AFRIKYAN, E.K.; BOBIKYAN, R.A.

Presence and formation of vitamin B_2 in the soil. Dokl. AN Arm. SSR 29 no.2:89-92 1 59. (MIRA 12:11)

1. Predstavleno akademikom AN Armyanskoy SSR M.A. Ter-Karapetyanom. (RIBOFLAVIN)

AFRIKYAN, E.K.; BOBIKYAN, R.A.; AVAKYAN, Z.G.

Determination and distribution of vitamin B₁₂ in various types of solls. Vop.mikrobiol. no.1:271-280 '61. (MIRA 17:10)

AFRIKYAN, B.K.; TUMANYAN, V.G.; SARUKHANYAN, L.B.; BOBIKYAN, R.A.; AVAKYAN, Z.G.

Effect of antibiotics on the causative agents of bacterial diseases of silkworms. Dokl.An ARM SSR 32 no.2:113-116 '61. (MIRA 14:3)

1. Sektor mikrobiologii Akademii nauk Armyanskoy SSR. Predstavleno akademikom AN Armyanskoy SSR V.O. Gulkanyanom.

(SIIKWORMS—DISEASES AND PESTS)

AFRIKYAN, E.K.; TUMANYAN, V.G.; CHIL-AKOPYAN, L.A.; BOBIKYAN, R.A.; SARUKHANYAN, L.B.; AVAKYAN, Z.G.

Effectiveness of antibiotics in bacterial diseases of the silkworm and in increasing productiveness. Dokl.AN Arm.SSR 32 no.3:155-158 161. (MIRA 14:5)

1. Sektor mikrobiologii Akademii nauk Armyanskoy SSR. Predstavleno akademikom AN Armyanskoy SSR V.O. Gulkanyanom.

(Silkworms—Diseasen and pests) (Antibiotics)

AFRIKYAN, E.G.; BOBIKYAN, R.A.

Formation and distribution of vitamin B₁₂ in soil. Trudy Inst. mikrobiol. no.11:341-345 *61 (MIRA 16:11)

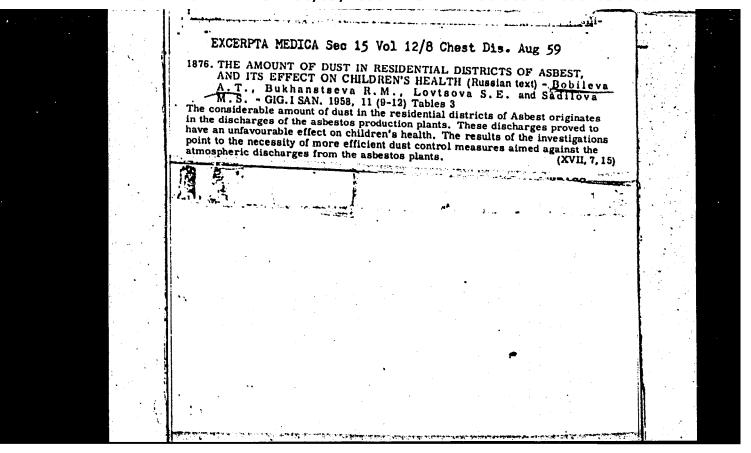
1. Sektor mikrobiologii AN Armyanskoy SSR.

L

TUMANYAN, V.G.; SARUKHANYAN, L.B.; BOBIKYAN, R.A.; AFRIKYAN, E.K.

Effect of antibiotic feeding on the development and productivity of the silkworm. Vop. mikrobiol. no.2:312-331 '64.

(MIRA 18:3)



KOVALEV, V.; BOBIN, A.; AVTAYKIN, N.; PERISTOV, Yu., red.; OLEYNIKOV, A., red.; TURABAYEV, B., tekhn. red.

[Wages for automotive transportation workers in Kazakhstan] Oplata truda rabotnikov avtotransporta Kazakhstana. Alma-Ata, Kazgosizdat, 1963. 70 p. (MTRA 17:1) (Kazakhstan--Wages--Transportation, Automotive)

BOBIN, I. P.

Dissertation: "The Effect of Repeated Loading on the Physicomechanical Properties of Fabrics." Cand. Tech. Sci., Moscow Inst. of National Economy imeni G. V. Plekhanov, 30 Jun 54. (Vechernyaya Moskva, Moscow, 22 Jun 54)

SO: SUM 318, 23 Dec. 1954

BOHIN, P.; SHIFRIN, I., prepodavatel

Working out norms must begin at enterprises. Fin. SSSR 21 no.3:28-33 Mr 160. (MIRA 13:3)

1. Starshiy kontroler-revisor Kontrol'no-revisionnogo upravleniya po L'vovskoy oblasti (for Bobin). 2. L'vovskiy lesotekhnicheskiy institut (for Shifrin).

(Lvov Province-- Industries)

S/274/63/000/001/017/020
D469/D308

AUTHORS: Pietrzyk, Ignacy and Bobin, Stanisław

TITLE: A prototype for printed circuits

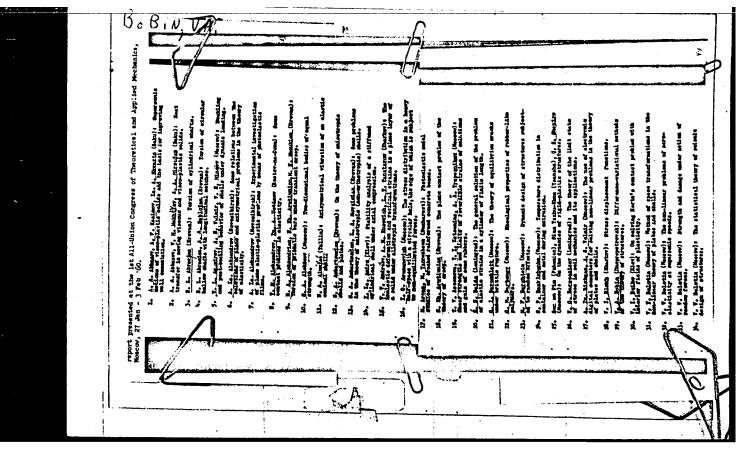
PERIODICAL: Referativnyy zhurnal, Radiotekhnika i elektrosvyaz', no. 1, 1963, 83, abstract 1B546 P ((Instytut Telei Radiotechniczny) Pol. pat., kl. 21 a4, 75, no. 44682, Aug. 14, 1961)

TEXT: In designing printed circuits it is suggested that a prototype with plugs (plates) having dimensions of the components be used in order to arrange circuit branches suitably without crisscrossing. The plugs have openings at points corresponding to the current leads. The leads are simulated by rubber strings. 5 figures.

Abstracter's note: Complete translation 7

Card 1/1

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000205620004-2



BOBIN, V. V.

Bovin, V. V. and Sakovich, A. N. "On the effect of mud baths on humoral im unity", Sbornik nauch. trudov kurorta Saki, Vol. IV, 1948, p. 75-77.

So: U-3261, 10 April 1953 (Letopis 'Zhurnal 'nykh, Statey, No. 12, 1949).

BCBIN, V. V.

Borodina, M. A. and Bobin, V. V. "On the use of Saki mud extracts in the treatment of diseases of the peripheral nervous system", Sbornik nauch. trudov kurorta Saki, Vol. IV, 1948, p. 221-25.

So: U-3261, 10 April 1953 (Letopis 'Zhurnal 'nykh Statey, No. 12, 1949).

BOBIN V.V.

Bobin, V. V. - "nerves of the bladder in man," Trudy K_{rymak} . med. in-ta im. Stalina, Vol. XII, 1948, p. 15-24

So: U-3950, 16 June 53, (etopis 'Zhurnal 'nykh Statey, No. 5, 1949).

- 1. BOBIN, V. V., PROF.
- 2. USSR (600)
- 4. Anatomy, Human
- 7. "Anatomy of man."
 Prof. N. V. Kolemnikov. Reviewed by Prof. V. V. Bobin.
 Khirurgiia. No. 9. 1952.

9. Monthly List of Russian Accessions, Library of Congress, January 1953, Unclassified.

BOBIN, V. 7. --

"The Relationships Between the Nerves of the Upper Extremity of Humans and the Nerves of the Anterior Extremity of Some Animals." Cand Med Sci, Khar'kov State Medical Inst, Khar'kov, 1953. (RZhBiol, No 2, Sep 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

SO: Sum. No. 481, 5 May 55

BOBIN, V.V. (Khar'kov)

Work of the Kharkov Province Society of Anatomists, Histologists, and Embryologists. Arkh.anat.gist.i embr. 33 no.3:99 J1-S '56. (MIRA 12:11)

(KHARKOV PROVINCE--ANATOMICAL SOCIETIES)

BOBIN, V.V. (Khar'kov, Pushkinskaya ul., d.20, kv.4); SHAPIRO, I.I.

Second Ukrainian conference of morphologists. Arkh.anat.gist. i
embr. 34 no.2:118-121 Mr-ap '57. (MERA 10:10)
(MORPHOLOGY)

BOBIN, V.V. (Khar'kov, Pushkinskaya, ul., d.20, kv. 4)

Significance of compensatory adaptations in the innervation of the upper extremity. Arkh. anat. gist. i embr. 35 no.4:70-72 Jl-Ag '58 (MIRA 11:10)

1. Kafedra normal'noy anatomii (zav. - prof. R.D. Sinel'nikov)

Thar'kovskogo meditsinskogo instituta.

(ARM, innervation,

compensatory, adaptation of nerves (Rus))

BOBIN, V.V., (Simferopol', ul. Pavlenko, d.13 kv.3)

Brief survey of the history of the department of normal anatomy during the 25 year of existence of the Crimean Medical Institute 1931-1956. Arkh.anat. gist. i embr. 35 no.4:104-106 Jl-Ag '58 (ANATOMY, educ. department of normal anat. of Crimean med.school (rus)) (ANATOMY, bibliog. (Rus))

SINEL'NIKOV, R.D.; BOBIN, V.V.; SHAPIRO, I.I.

Some data for the study of the asymmetry of the central and peripheral nervous systems. Arkh.anat., gist.i embr. 44 no.1:56-61 Ja **163. (MIRA 16:5)

1. Kafedra normal'noy anatomii (zav. - prof. R.D. Sinel'nikov) Khar'kovskogo meditsinskogo instituta. (NERVOUS SYSTEM)

BOBIN, V. V.

"Paleopatologicheskiye nakhodki poslednikh let v Krymu i na Severnom Kavkaze." report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences, Moscow, 3-10 Aug 64.

BOBIN, V.V. Dat Ark

Data on the merphology of facial nerve connections in some mammals. Arkh.anat.gist. i embr. 48 nc.3142-46 Mr 165.

(MTRA 1816)

1. Kafedra normal'noy anatomii (zav. - prof. R.D.Sinel'nikov) Khar'kovskogo meditsinskogo instituta.

OSTROUSHKO, I.A.; YMMEKEYEV, V.I.; BOBIN, Ye.G.; KORAKHIDZE, V.N.; YARMIZIN, V.Ya.; KULIK, G.T.

Industrial testing of mechanical charging of deep, horizontal blast Industrial testing of mechanical charging of deep, acceptable holes. Izv. vys. ucheb. zav.; tsvet. met. no.1:20-27 58.

(MIRA 11:6)

1. Severokavkasskiy gornometallurgicheskiy institut. Kafedra 1. Severokavana dela. spetskursov gornogo dela. (Mining engineering)

OSTROUSHKO, I.A.; YEMEKEYEV, V.I.; BOBIN, Ye.G.; CHUGUNOV, L.F.

Mechanized charging of blast holes in mining. Izv.vys.ucheb. sav.; tsvet.met. 2 no.6:11-16 159. (MIRA 13:4)

1. Severokavkazskiy gornometallurgicheskiy institut. Kafedra spetskursov gornogo dela.
(Mining engineering---Equipment and supplies)

OSTROUSHKO, I.A.; YEMEKRYEV, V.I.; BIRYUKOV, I.A.; KRIVCHIKOV, P.F.; CHUGUNOV, L.F.; BOBIN, Ye.G.

> Mechanized hole charging in powder blasting operations. Gor. zhur. no.10:36-38 0 60. (MIRA 13:9)

- 1. Severo-Kavkasskiy gorno-metallurgicheskiy institut, g. Ordshonikidse (for Ostroushko, Yemekeyev, Biryukov). 2. Tyrnyausskiy gorno-obogatitel nyy kombinat (for Krivchikov, Chugunov, Bobin).

(Mining engineering)

OSTROUSHKO, I. A., prof.; YEMEKEYEV, V. I., dotsent; BOBIN, Ye. G., inzh.; MEDVEDEV, V. V., inzh.; KOBAKHIDZE, V. N., inzh.; KRIVCHIKOV, P. F., inzh.; CHUGUNOV, L. F., inzh.; MASTRYUKOV, M. V., inzh.

Improving mechanised charging of blastholes, Isv. vys. ucheb. zav.; gor. shur. no.9:92-96 '61. (MIRA 15:10)

1. Severokavkasskiy gornometallurgicheskiy institut. Rekemendovana kafedroy gornogo dela.

(Blasting)

OSTROUSHKO, Ivan Antonovich, prof., doktor tekhn. nauk; BOBIN.

Yevgeniy Gerasimovich, gornyy inzh.; YEMEKEYEV, Vyacheslav

Ivanovich, dots., kand. tekhn. nauk; KRIVCHIKOV, Petr

Fedorovich, gornyy inzh.; CHUGUNOV, Leonid Fedorovich,
gornyy inzh.; DEMIDYUK, G.P., kand. tekhn. nauk, retsenzent;
GEYMAN, L.M., red.izd-va; LAVRENT'YEVA, L.G., tekhn. red.

[Mechanization of blasting; mechanization of loading and stemming blast holes and mine chambers]Mekhanizatsiia vzryvnykh rabot; mekhanizatsiia zariazhenia i zaboiki shpurov, vzryvnykh skvazhin i minnykh kamer. Moskva, Gosgortekhizdat, 1962. 127 p. (MIRA 15:11) (Blasting--Equipment and supplies)

OSTROUSHKO, I.A.; YEMEKEYEV, V.I.; BOBIN, Ye.G.; KRIVCHIKOV, P.F.; CHUGUNOV, L.F.; MASTRYUKOV, M.V.

Improving preumatic charging of blast holes. Gor. zhur. no.11:33-37 N *63. (MIRA 17:6)

1. Severo-Kavkazskiy gornometallurgicheskiy institut (for Ostroushko, Yemekeyev, Bobin). 2. Tyrny-Auzskiy kombinat (for Krivchikov, Chugunov, Mastryukov).

YEMEKEYEV, V.I.; BOBIN, Ye.G.; OSTROUSHKO, I.A.; BURNATSEV, M.V.; DEMIN, K.V.; PLIKH, V.A.; KRIVCHIKOV, P.F.; CHUGUNOV, L.F.

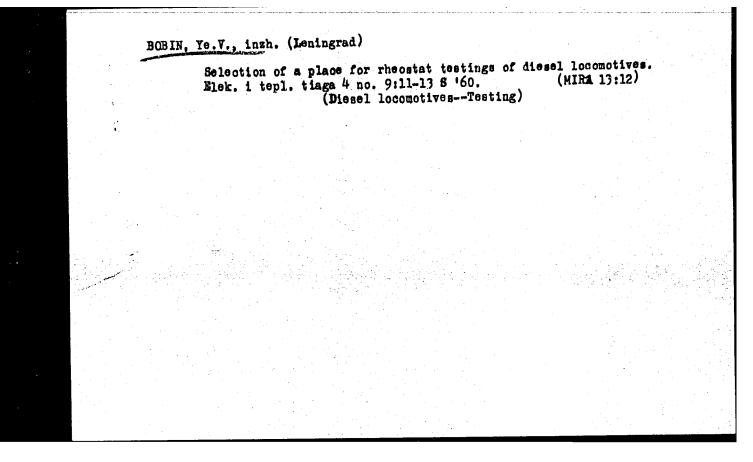
The PZK pneumatic charging columns with automatic proportioning of the air. Gor.zhur. no.8:47-49 Ag 165.

(MIRA 18:10)

1. Severo-Kavkazskiy gornometallurgicheskiy institut (for Yemekeyev, Bobin, Ostroushko). 2. Severo-Kavkazskiy filial konstruktorskogo byuro TSvetmetavtomatika (for Burnatsev, Demin, Plikh).
3. Tyrnyauzskiy kombinat (for Krivchikov, Chugunov).

BOBIN, Ye.V., inzh. Noise control in passenger cars at high speeds. Shor.LIIZHT No.170:96-103 '60. (MIRA 13:8)

(Railroads--Passenger cars)



BOBIN, Ye.V., insh.

Noise control in railway transport ion. Gig.i san. 25 no.9:106-110 S '60. (MIRA 13:9)

1. Iz Leningradskogo instituta inzhenerov zheleznodorozhnogo transporta.
(NOISE) (RAILROADS-HYGIENIC ASPECTS)

BOBIN, Ye.V., inzh.

Some measures for reducing the noise of locomotive whistles. Gig. i san. 26 no.9:12-18 S '61. (MIRA 15:3)

1. Iz laboratorii po bor'be s shumom Leningradskogo instituta inzhenerov zheleznodorozhnogo transporta imeni akademika V.N. Obraztsova.

(LOCOMOTIVE SOUNDS)
(MOISE)

BOBIN, Ye.V., inzh. Control of industrial noises is an important factor in industrial hygiene and safety engineering. Zhel.dor.transp. 43 no.2:48-50 (MIRA 14:4)

(Industrial hygiene)

(Railroads-Noise) (Safety engineering)

BOBIN, Ye.V.; PIRIN, I.V., retsenzent; HRATCHIK, Ye.I., red.;

MEDUEDEVA, M.A., tekhn. red.

[Control of industrial noise in railroad transportation]

Bor'ba approize odstvennym shumom na zheleznodorozhnom transporte. Moskva, Izd-vo "Transport," 1964. 141 p.

(MIRA 17:3)

PARIYSKAYA, L.V.; KOGAN, F.N.; KALACHEVA, A.P.; CHEREDNICHENKO, G.S..

Prinimali uchastiye: PASHNINA, V.I.; KOROBKOVA, T.N.; BURYAKOYA, G.I.; AGASHKINA, N.S.; ANTOKHINA, G.N.; ANUROYA, V.Ya.;
BOBINA, M.L.; YERMAKOVA, Z.P.; YEFREMOV, Yu.A.; POLUTSKAYA,
L.G.; SHISHKINA, V.G.; LAPTIYEV, P.P., otv.red.; ROGOVSKAYA,
Ye.G., red.; SERGETEV, A.N., tekhn.red.

[Agroclimatic reference book on Chita Province] Agroklimaticheskii spravochnik po Chitinskoi oblesti. Leningrad, Gidrometeor.izd-vo, 1959. 131 p. (HIRA 13:2)

1. Chita. Gidrometeorologicheskaya observatoriya. 2. Starshiy inzhener-agrometeorolog Chitinskoy gidrometeorologicheskoy observatorii (for Pariyskaya). 3. Chitinskaya gidrometeorologicheskaya observatoriya (for Kogan, Kalacheva, Cherednichenko).

(Chita Province---Crops and climate)

STRAZHIDINOV, D., BOBINA, N.V.

Geochemical characteristics of gases of the Mubarek oil and gas region. Neftegaz, gool. i geofic. no.4, 20038 165.

(MJRA 18:7)

1. Institut geologii i razrabotki neftyanykh i gazovykh mestorozhdeniy AN UZSSR.

- 1. BOBINER, S.B.
- 2. USSR (600)
- 4. Pharmacy
- 7. Analysts in pharmacies. Apt.delo no.5, 1952.

9. Monthly List of Russian Accessions, Library of Congress, January 1953, Unclassified.

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5. 1190 also 2209

s/081/60/000/017/004/016 A006/A001

Translation from: Referativnyy zhurnal, Khimiya, 1960, No. 17, p. 63, # 68688

AUTHORS:

Razuvayev, G.A., Bobinova, L.M., Etlis, V.S.

PIPLE:

Titanium Compounds as Catalysts of Olefin Polymerization. Informa-

tion II

PERIODICAL:

Tr. po khimii i khim. tekhnol. 1958, No. 3, pp. 659-663

TEXT: It is shown that the $TiCl_h + Ti(iso-OC_3H_7)_h$ system is an effective catalyst for propylene polymerization, the molar ratio of $TiCl_h$ to $Ti(iso-OC_3H_7)_h$ being 3 - 6, and a liquid polymer is formed consisting of unsaturated hydrocarbons with a branched chain. The following titano-organic compounds are synthesized: $iso-C_3H_7OTiCl_3$; $sec-C_hH_0OTiCl_3$; $cyclo-C_6H_1lOTiCl_3$. It is established that these compounds decompose rapidly during storage resulting in the formation of titanium exychloride which is an active catalyst in the polymerization of olefins (propylene, isobutylene, styrene).

The authors' summary

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

AUTHORS:

Razuvayev, G. A., Bobinova, L. M., SOV/ 79-28-6-43/63

Etlis, V. S.

TITLE:

Organozine Compounds, Catalysts for the Polymerization of

Propylene (Tsinkorganicheskiye soyedineniya-katalizatory poli-

merizatsii propilena)

PERIODICAL:

Zhurnal obshchey khimii, 1958, Vol. 28, Nr 6,

pp. 1623 - 1626 (USSR)

ABSTRACT:

The authors regarded it necessary to investigate the catalytic activity of organozinc compounds (diethyl-, dipropyl- and diphenyl zinc) for the polymerization of propylene. Diethylzinc with an addition of titanium chloride proved to be an active catalyst. In the presence of diethylzinc and tin tetrachloride (or sodium isopropylate) propylene does not polymerize. The influence of the reaction temperature on the polymerization of propylene, of the reaction duration, the composition of the catalyst (molar retic between Tarka N)

lyst (molar ratio between $Zn(C_2H_5)_2$ and $TiCl_4$ (furtheron denoted by C) and of the column to the cata-

by C) and of the solvent were investigated. It was found that the best yield of polypropylene was obtained at 110-1200(Tab 1).

Card 1/3

After a longer duration of the polymerization (from 3 to 5 hours)

Organozine Compounds, Catalysts for the Polymerization 50 1/79-28-6-43/63 of Propylene

the yield increased only little (Tab 1). The composition of the catalyst has a strong effect on the yield and the quality of the polymer. The best yield was obtained at the equimolecular ratio between $\text{Zn}(C_2H_5)_2$ and Ticl_4 , however, in this case the polymer was obtained as an oil of varying viscosity. At C=3 a solid propylene was obtained (yield = 30%, melting point= 150-158°, molecular weight = 10000-18000). On a further increase of C its yield decreased considerably (Tab 2). Heptane and isooctane were used as solvents for the polymerization, the first mentioned supplying somewhat smaller yields (Tab 3). The substitution of zincdiethyl by zinc dipropyl and zincdiphenyl changed only little the activity of the catalyst in the polymerization of propylene. Thus the character of the radial exerts only little influence on the catalytic activity of the organizinc compound. The authors investigated the influence of the component molecular ratio on the yield and quality of the polymer in the case of the catalysts $\text{Zn}(C_3H_7)_2 + \text{Ticl}_4$ and $\text{Zn}(C_6H_5)_2 + \text{Ticl}_4$. There are 5 tables and

Card 2/3

Organozine Compounds; Catalysts for the Polymerization SOV/79-28-6-43/63 of Propylene

7 references, 4 of which are Soviet.

SUBMITTED:

May 23, 1957

1. Propenes--Polymerization

Card 3/3

AUTHORS:

Razuvayev, G. A., Corresponding

SOY/20-122-4-22/57

Member, Academy of Sciences, USSR,

Bobinova, L. M., Etlis, V. S.

TITLE:

Production and Properties of Several Trichloro-Titane-Alkoxy Compounds With Secondary and Tertiary Alkyl Groups (Polucheniye i svoystva nekotorykh trikhlortitanalkoksi-

soyedineniy s vtorichnymi i tretichnymi alkilinymi gruppami)

PERIODICAL:

Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 4, pp 618 -

620 (USSR)

ABSTRACT:

Some authors believe the titane organic compounds to be the initiators of the polymerization of the olefines; therefore, they have been carefully considered recently as possible intermediate products of the reaction of trialkylaluminum with titane tetrachloride (Refs 1 - 3). In the present paper some titane compounds of the type TiCl_OR were synthetized and investigated. In this connection R denotes the secondary or tertiary group. Since in the synthesis, according to reference 6 an insufficient pure compound was obtained, the authors used isopropyl alcohol and an excess of TiCl_A in a petroleum ether solution (boiling point 60 -

Card 1/4

Production and Properties of Several Trichloro-Titane-Alkoxy Compounds With Secondary and Tertiary Alkyl Groups 507/20-122-4-22/57

70°) for the synthesis of i-C₂H₇OTiCl₃ at approximately O. Crystals of the pure titans-trickloro-isopropylate were precipitated from the filtrate after a part of the solvent had been distilled off and cooled down. Secondary $^{\rm C_4H_9OTiCl_3}$ and $^{\rm C_6H_1OTiCl_3}$ (hitherto not described) were produced in a similar way, but by distilling off under vacuum in order to reduce the decomposition of the said compounds (Table 1). The latter are, however, unstable in contrast to similar compounds with primary groups. In the case of decomposition, gaseous products escape and titane exychloride is produced. The following compounds were furthermore identified in the case of isolation of liquid products under vacuum: hydrogen chloride, alkylchloride, i-C₂H₂Cl from the secondary C₄H₂OTiCl₂ and C₆H₁OTiCl₃. Furthermore, polymerization products of the olefines were closely adsorbed on the surface of the oxychloride. Table 2 shows a balance of this decomposition. Table 3 gives the physical-chemical properties of the decomposition products. From the isolated products it may be assumed that the

Card 2/4

Production and Properties of Several Trichloro-Titane-Alkoxy Compounds With Secondary and Tertiary Alkyl Groups

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primary decomposition process of the mentioned compounds is the formation of the titane oxychloride and of the radicals. The latter might then yield one olefine and HCl or an alkylchloride. Finally the authors were able to prove that the titane oxychloride effectively catalyzes the reaction of the hydrochlorination of propylene, isobutylene, and cyclohexene. Alkylchlorides with good yields are formed in this case. No inverse reaction (dehydrochlorination of alkylchlorides) takes place in the case of decomposition of the titane organic initial compounds. On the strength of the above-mentioned results a decomposition scheme is suggested. Further ranges of application are finally given along with exemplifications. There are 3 tables, and 7 references, 2 of which are Soviet.

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